

## Length of a Line Segment

Date: \_\_\_\_\_

**EX:** Find the length of the line segment joining A(3, 4) and B(6, 9).

**The formula for finding the length of a line segment given the endpoints**

**$A(x_1, y_1)$  and  $B(x_2, y_2)$  is  $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ .**

**EX:** Find the length of the line segment joining A(3, -5) and B (-6, 7).

**Recall - three types of triangles are equilateral, isosceles and scalene.**

**EX:** Triangle ABC has vertices A(2, 5), B (-2, -1) and C(6, -1). Classify the triangle by determining the side lengths.

**EX:** The vertices of a triangle are A( 4, 4), B(-6, 2) and C(2, 0). If M is the midpoint of AB and N is the midpoint of AC, verify that MN is half the length of BC.